

20th Annual  
**FRONTIERS**

**IN UNDERGRADUATE RESEARCH  
POSTER EXHIBITION**

**April 7, 2017**

3:00 p.m. - 4:30 p.m.

**April 8, 2017**

10:30 a.m. - 12:30 p.m.

Sponsored by  
The University of Connecticut

Office of Undergraduate Research  
Enrichment Programs  
Honors Program

## About Frontiers in Undergraduate Research

The Frontiers Poster Exhibition is a multidisciplinary research forum and the largest showcase of undergraduate research, scholarship, and creative projects at the University of Connecticut. Frontiers 2017 is the twentieth annual Frontiers event sponsored by the Office of Undergraduate Research (OUR). **This year's poster exhibition includes 236 students presenting posters for 207 research projects, with some students presenting on Friday or Saturday only.**

The projects span the disciplines and include both independent research and work pursued in collaboration with other undergraduates as well as graduate student and faculty mentors. The presenters are among the top students at UConn and include Honors students, University Scholars, winners of OUR funding competitions, and nominees and winners of prestigious national scholarships. We hope you enjoy meeting our wonderful students and learning about their exciting work.

## About the Office of Undergraduate Research

The Office of Undergraduate Research (OUR) is a resource for students interested in enriching their undergraduate experience through participation in research, scholarship, and creative activity. Our office provides information and advising to assist students in identifying relevant opportunities, as well as several funding programs to support the students and their faculty mentors.

Many of the Frontiers presenters have received financial support for their projects from the OUR, which awarded over \$395,000 in 2015-2016 to students for their research and creative work over the summer and during the academic year. These awards are funded by the Office of Undergraduate Research with generous support from the Deans of the schools and colleges, the Office of the Vice President for Research, the **Provost's office, and private donations from many, many alumni, parents, and other friends of UConn and undergraduate research.**

# Schedule of Events

Poster Exhibition	Friday, April 7, 2017 3:00 p.m. – 4:30 p.m.
	Saturday, April 8, 2017 10:30 a.m. – 12:30 p.m.
Student and Faculty Reception	Friday, April 7, 2017 4:30 p.m. – 5:30 p.m.

## **Introduction and Welcome**

**Caroline McGuire**, Director, Office of Undergraduate Research

## **Presentation of the Mentorship Excellence Awards**

### ***Faculty Awards***

**Virginia Hettinger**, Associate Professor, Political Science

Presented by **Tom Cotton '17** (ENG)

**Morgan Tingley**, Assistant Professor, Ecology and Evolutionary Biology

Presented by **Genevieve Nuttall '18** (CLAS),  
**Sarah Rumsey '19** (CLAS), and **Nicholas Russo '18** (CLAS)

### ***Graduate Student Award***

**Amanda Coletti**, Ph.D. Student, Physiology and Neurobiology

Presented by **Emily Norton '17** (CLAS)

## **Closing Remarks**

**Jennifer Lease Butts**, Assistant Vice Provost, Enrichment Programs and Director, Honors Program



# Sequential Listing of Poster Presentations

This listing of projects includes the undergraduate student authors and their faculty mentors. Many projects also include the contributions and mentorship of dedicated graduate students and post-doctoral scholars. In some cases students work with faculty outside their school or college; in most cases, research is grouped according to the student's major.

**Please note that an “F” after the poster number signifies a presentation on Friday only and an “S” after the poster number signifies a presentation on Saturday only.** An alphabetical listing of presenters begins on page 33.

## ROTUNDA

### 1. 3D Printed Nerve Guidance Conduits for Peripheral Nerve Regeneration

Delaina Pedrick, Biomedical Engineering

Advisor: Yen-Chih Huang, Associate Professor in Residence, Biomedical Engineering

### 2. Microscope Integrable Robotic Automated Arm Powered by Arduino

Charmi Patel, Biomedical Engineering

Advisor: Guoan Zheng, Assistant Professor, Biomedical Engineering

### 3. The Effect of the High Intensity CrossFit Workout on Knee Joint Biomechanics

Emily Wycallis, Biomedical Engineering

Alexa Kiernan, Biomedical Engineering and German

Advisor: Krystyna Gielo-Perczak, Associate Professor in Residence, Biomedical Engineering

### 4. Defluoridation of Drinking Water through Adsorption Using Naturally Occurring Zeolites

Jacob Struble, Chemical Engineering

Colin Gerrity, Chemical Engineering

Advisor: Julia Valla, Assistant Professor, Chemical and Biomolecular Engineering

### 5. CoderTheTyler: Engaging and Understandable Computer Science Education for All

Tyler Daddio, Computer Science and Mathematics

Advisor: Ion Mandoiu, Associate Professor, Computer Science and Engineering

6. Invasive Plant Solutions - Business Focused on Removing Invasive Plants

Christian Allyn, Horticulture and Resource Economics

Advisor: Joseph Bonelli, Associate Extension Educator, UConn Extension

Advisor: Donna Ellis, Senior Extension Educator, Plant Science and Landscape Architecture

7. Analyzing the Effect of Hemoglobin's Microenvironment on its Glycation Sites through Amino Acid Labeling and Mass Spectrometry

Srinivas Srirangam, Molecular and Cell Biology

Advisor: Xudong Yao, Associate Professor, Chemistry

8. Influence of the Social Environment on the Behavior of Rat Pairs Exploring a Novel Open Field

Saheeb Ahmed, Physiology and Neurobiology

Logan Horbal, Physiology and Neurobiology

Advisor: Etan Markus, Professor, Psychological Sciences

9. Atypical White Matter Tract Development in the TS2-neo Mouse Model of Timothy Syndrome Mediated Autism Spectrum Disorder

Aiden Ford, Physiology and Neurobiology and Individualized Major:

Neurodevelopment and Health

Advisor: R. Holly Fitch, Professor, Psychological Sciences

10. STEM Talk Magazine

Feny Rasania, Pathobiology

Divya Ganugapati, Cognitive Science

Lysette Johnson, Applied Mathematics

Katherine Sypher, Cognitive Science

Advisor: Kristen Govoni, Associate Professor, Animal Science

11. Summer for Koreans: Health Fair on Wheels

Mink Kim, Nursing

Seo-Yeon Lee, Allied Health Sciences

Advisor: Tania Huedo-Medina, Assistant Professor, Allied Health Sciences

12F. Effect of Integrin  $\alpha 5 \beta 1$  and Collagen on Mesoporous Silicate Nanoparticle Tumor Specific Targeting

Brian Liang, Molecular and Cell Biology and Sociology

Advisor: Xiuling Lu, Assistant Professor, Pharmaceutical Sciences

12S. Improving Nutrition at the Covenant Soup Kitchen

Ayush Mittal, Molecular and Cell Biology

Advisor: Hedley Freake, Professor, Nutritional Sciences

Advisor: Phoebe Godfrey, Associate Professor in Residence, Sociology

13. Reframing Music Performance Anxiety as Excitement: Examining Efficacy Using Psychological and Physiological Measures

Stephanie Lin, Physiology and Neurobiology and Psychological Sciences

Advisor: Blair Johnson, Distinguished Professor, Psychological Sciences

Advisor: Peter Kaminsky, Professor, Music

Advisor: John Redden, Assistant Professor in Residence, Physiology and Neurobiology

14. Examining the Impact of Women In Local Government on Social Programs and Female Empowerment in the Asia-Pacific

Rebecca Kaufman, Political Science and Human Rights

Advisor: David Richards, Associate Professor, Political Science and Human Rights

15F. Refugees and Global Governance

Lucas Bladen, Political Science and Human Rights

Advisor: Jennifer Sterling-Folker, Alan R. Bennett Honors Professor and POLS Honors Director, Political Science

15S. Stigmatized: A Study of Refugee and Economic Migrant Integration in French Politics and Culture

Lucas Bladen, Political Science and Human Rights

Advisor: Jennifer Sterling-Folker, Alan R. Bennett Honors Professor and POLS Honors Director, Political Science

16. The Faces of the Gun Violence Prevention Movement in Connecticut

Elizabeth Charash, History

Advisor: Mary Bernstein, Professor, Sociology

17F. Empathy and Empowerment in K-2 Read Aloud Sessions: An Analysis **of the Inclusion of Multicultural Children's Literature**

Kaitlin Jenkins, Elementary Education and English

Advisor: Victoria Ford-Smith, Assistant Professor, English

Advisor: Douglas Kaufman, Associate Professor, Curriculum and Instruction



17S. Literature Selection and Empathy-Driven Curriculum in Secondary English Courses

Kaitlin Jenkins, Elementary Education and English

Advisor: Wendy Glenn, Professor, Curriculum and Instruction

18. From C to C: Chinese Cuisine in Connecticut

Jia Lun, Consumer Behavior

Advisor: Cathy Schlund-Vials, Professor, English, and Director, Asian and Asian American Studies Institute

19. Where My Family Calls Home: A Novel Exploring Chinese Diaspora through Family History

Stephanie Koo, English and Biological Sciences

Advisor: Cathy Schlund-Vials, Professor, English, and Director, Asian and Asian American Studies Institute

20. Include/Exclude: Explorations of Xenophobia through Printmaking

Diana Abouchacra, Art – Printmaking

Advisor: Laurie Sloan, Associate Professor, Art and Art History

21. STAMPEDE: A Solo Exhibition of Sculptural Printmaking

Catherine Solari, Studio Art - Sculpture and Ceramics

Advisor: Monica Bock, Associate Professor, Art and Art History

22. BuyTown: The Pilot

Benjamin Piascik, Digital Media and Design

Advisor: Dan Pejril, Assistant Professor in Residence, Digital Media and Design

23. In the Library and Online: Social Media and Civic Discourse

Samantha Mairson, Digital Media and Design

Advisor: Clarissa Ceglie, Assistant Professor, Digital Media and Design

Advisor: Tom Scheinfeldt, Associate Professor, Digital Media and Design

24F. Sitting Pretty, Wood Bending

Hasan Zaidi, Studio Art - Sculpture

Advisor: Monica Bock, Associate Professor, Art and Art History

## HALLWAY

25. Identifying and Using Critically Conscious Film to Address Education Inequity

Kathrine Grant, Secondary English Education and English

Advisor: Mark Kohan, Assistant Clinical Professor, Curriculum and Instruction

Advisor: Susan Payne, Associate Clinical Professor, Curriculum and Instruction

26F. Contrasting Classroom Observation Tools to Identify Effective Teaching

Rachael Orbe, Secondary English Education and English

Advisor: Rachael Gabriel, Assistant Professor, Curriculum and Instruction

26S. Teacher Perceptions of Math Anxiety in Themselves and Their Students

Amanda MacDonald, Elementary Education

Advisor: Catherine Little, Associate Professor, Educational Psychology

27F. What Do Professional Evaluators Need to Know and Be Able to Do? Preliminary Findings

Mindy Fan, Elementary Education

Advisor: Bianca Montrosse-Moorhead, Assistant Professor, Educational Psychology

27S. A Study of Parent Perceptions of Advanced Academic Potential in the Early Grades

Jennifer O'Brien, Elementary Education

Advisor: Catherine Little, Associate Professor, Educational Psychology

28F. The Parental Perception of Helmet Therapy for Infants with Plagiocephaly

Camille Van Allen, Nursing

Advisor: Jacqueline McGrath, Professor and Associate Dean, Nursing

28S. Teacher Perceptions of the Purposes of Social Studies Education

Rachel Forte, Secondary History/Social Studies Education and History

Advisor: Catherine Little, Associate Professor, Educational Psychology

29F. Neonatal Abstinence Syndrome: Exploring Neonatal Nurses' Attitudes, Knowledge, and Practice  
Rachael Romisher, Nursing  
Advisor: Xiaomei Cong, Associate Professor, Nursing

29S. Reflective Academic Journaling in High School English Classrooms  
Jacqueline Bickley, English  
Advisor: Catherine Little, Associate Professor, Educational Psychology

30. The Influence of Comfort Measures on the Infant's Microbiota in the Neonatal Intensive Care Unit (NICU)  
Samantha Poveda, Nursing  
Advisor: Xiaomei Cong, Associate Professor, Nursing

## NORTH READING ROOM

31. Unexpected Outcomes of Reminiscence  
Joseph Ferraro, Nursing  
Advisor: Deborah McDonald, Associate Professor, Nursing

32. Factors Affecting Osteoarthritis Patient Pain Management Adherence  
Gabrielle Young, Nursing  
Advisor: Deborah McDonald, Associate Professor, Nursing

33. Identification of Barriers and Facilitators of Physical Activity Across the Lifespan  
Erin Milner, Nursing  
Advisor: Deborah McDonald, Associate Professor, Nursing

34. Investigating the Relationship Between Infant Weight Gain and Early Cessation of Breastfeeding in Late Preterm and Full-Term Infants  
Lindsay Moore, Nursing  
Advisor: Ruth Lucas, Assistant Professor, Nursing

35. Partnering with Health Care Professionals to Validate a Questionnaire to Identify the Needs of Children with Cancer and Their Parents During End of Treatment and Transition to Survivorship Care  
Kirstie Oldham, Nursing  
Advisor: Ruth Lucas, Assistant Professor, Nursing

36F. Using a Focus Group to Evaluate Modules on Self-Management of Irritable Bowel Syndrome

Jenny Yung, Nursing

Advisor: Angela Starkweather, Professor, Nursing

36S. Building Knowledge and Skills for Nursing Research and Team Science

Tadeu Oliveira, Nursing

Amanda Pinto, Nursing

Carleen Tan, Nursing

Anna Zhuang, Nursing

Advisor: Angela Starkweather, Professor, Nursing

37F. Evaluation of Association Between BMI, TLR4, and Postpartum Depressive Symptomatology

Brittany Molkenthin, Nursing

Advisor: Michelle Judge, Assistant Professor, Nursing

Advisor: Erin Young, Assistant Professor, Nursing

Advisor: Cheryl Beck, Distinguished Professor, Nursing

37S. Type 1 Diabetes and Healthcare Providers: Understanding Social Perceptions and Stigma

Victoria Sylvestre, Nursing

Advisor: Ruth Lucas, Assistant Professor, Nursing

Advisor: Laura Mauldin, Assistant Professor, Human Development and Family Studies

Advisor: Cathy Schlund-Vials, Professor, English, and Director, Asian and Asian American Studies Institute

38F. Until There is a Cure, There is Camp!

Jacqueline Ortiz, Nursing

Advisor: Cheryl Beck, Distinguished Professor, Nursing

38S. Investigating Potential Links Between Postpartum Depression, Work Activity, BMI and Inflammation

Jessica Sikka, Biological Sciences

Advisor: Michelle Judge, Assistant Professor, Nursing

**39. Older Adults' Response to Analgesic Adverse Drug Events: A Pilot Study**

Candy Jin, Biological Sciences

Sarah Coughlin, Allied Health Sciences

Advisor: Deborah McDonald, Associate Professor, Nursing

**40. Obesity Diagnosis in Pediatric Emergency Departments: A Missed Opportunity**

Kristin Burnham, Pathobiology and Molecular and Cell Biology

Advisor: Arlene Albert, Professor, Molecular and Cell Biology

Advisor: Sharon Smith, Professor of Pediatrics, University of Connecticut School of Medicine

**41. A Geographic Perspective of Access to Planned Parenthood and Affordable Care Act**

Abigail Raynor, Individualized Major: Global Health

Advisor: Debarchana Ghosh, Assistant Professor, Geography

Advisor: Monica van Beusekom, Director, Individualized and Interdisciplinary Studies Program

**42. Characterizing Macrolinguistic Deficits Following Closed Head Injury**  
Erin Hurley, Cognitive Science

Advisor: Carl Coelho, Professor, Speech, Language, and Hearing Sciences

**43. An Analysis of Speaker Naturalness Following Intensive Therapy Targeting Prosody in Apraxia of Speech**

Lisa Mueller, Speech, Language, and Hearing Sciences

Advisor: Carl Coelho, Professor, Speech, Language, and Hearing Sciences

**44. Quality or Quantity? The Defining Factors of Bilingual Infants' Later Word Production**

Sarah Polcaro, Speech, Language, and Hearing Sciences

Kaleigh Constantine, Speech, Language, and Hearing Sciences

Kristen Fagan, Speech, Language, and Hearing Sciences

Advisor: Adrian Garcia-Sierra, Assistant Professor, Speech, Language, and Hearing Sciences

45. The Three Most Attractive Vowels to Infants: How Bilingual Caregivers' Speech Signal Influences Later Word Production

Noelle Wig, Speech, Language, and Hearing Sciences and Psychological Sciences

Allison Tozzi, Speech, Language, and Hearing Sciences

Pushpinder Singh, Physiology and Neurobiology

Advisor: Adrian Garcia-Sierra, Assistant Professor, Speech, Language, and Hearing Sciences

46. Interpersonal Functioning and Worry in General Anxiety Disorders and Social Anxiety Disorders

Alexandria Nuccio, Psychological Sciences

Advisor: Kimberli Treadwell, Associate Professor, Psychological Sciences

47. Post-Traumatic Stress in Children with Domestic Violence Exposure

Neha Pawar, Individualized Major: Global Health and Reproduction and Molecular and Cell Biology

Advisor: Damion Grasso, Assistant Professor, Psychiatry, UConn Health

48. Assessing the Concordance of Parent, Child, and Independent Evaluator Reports of Anxiety Symptoms

Alicia Bachtel, Psychological Sciences

Advisor: Golda Ginsburg, Professor, Psychiatry, UConn Health

49F. Investigating the Cross-Modal Dynamics of Music and Emotion in Childhood

Erica Scarpati, Speech, Language, and Hearing Sciences and Psychological Sciences

Advisor: Parker Tichko

49S. Comparing Joint Engagement in Children with Autism Spectrum Disorder and Typically Developing Children

Erin Micali, Psychological Sciences and Communication

Advisor: Letitia Naigles, Professor, Psychological Sciences

50. Prevalence of Frozen Language Forms in Children With Autism Spectrum Disorders

Daniel Wivell, Cognitive Science

Advisor: Letitia Naigles, Professor, Psychological Sciences

51F. Perceived Discrimination on Muslim Health

Sara Hasan, Psychological Sciences

Advisor: Rick Gibbons, Professor, Psychological Sciences

51S. Sanitation and its Health Impacts in Shanty Towns of Peru

Anuja Dulal, Individualized Major: Socio-Biomedical Perspectives on Health

Advisor: Pamela Erickson, Professor and Department Head, Anthropology

52F. Can Visual Shapes Influence Phoneme Perception?

Jessica Joseph, Psychological Sciences

Advisor: Eiling Yee, Assistant Professor, Psychological Sciences

Advisor: Emily Myers, Assistant Professor, Speech, Language, and Hearing Sciences

52S. Heritage Signers of Nicaragua: An Ethnographic Analysis

Therese O'Neill, Speech, Language and Hearing Sciences

Advisor: Marie Coppola, Assistant Professor, Psychological Sciences and Linguistics

53. A Sociometric Approach to Studying Pain in a Clinical Setting

Anika Obasiolu, Individualized Major: Psychosocial Health

Advisor: Dimitrios Xygalatas, Assistant Professor, Anthropology

54. Mu Rhythm and Social Learning in Infants

Sonia Limaye, Allied Health Sciences

Dilsara Liyanage, Psychological Sciences

Advisor: Kimberly Cuevas, Assistant Professor, Psychological Sciences

55. The Association between Community Factors and Exercise Intervention Efficacy for Cancer Survivors

Benjamin White, Psychological Sciences

Advisor: Blair Johnson, Distinguished Professor, Psychological Sciences

56. Attitudes Towards Interfaith Relationships, Religiousness, and Stress

Grant Zitomer, Psychological Sciences

Advisor: Crystal Park, Professor, Psychological Sciences

57. Siblings' Experiences with Chronic Illness: Wilderness-Based Program's Impact on Sense of Self

Stephanie Laprise, Human Development and Family Studies

Advisor: Preston Britner, Professor, Human Development and Family Studies

58F. Internet-Delivered Obesity Treatment Improves Symptoms of and Risk for Depression

Jacob Naparstek, Physiology and Neurobiology

Advisor: Tricia Leahey, Associate Professor, Allied Health Sciences

58S. The Impact of Parental Divorce and Post-Divorce Adjustment Patterns: An Analysis of Romantic Relationship Expectations and Processes

Nina Klein, Human Development and Family Studies

Advisor: Shannon Weaver, Associate Professor, Human Development and Family Studies

59. Perceptions of Sexuality, Consent, and Sexual Assault Among College Students

Isabella Randazzo, Human Development and Family Studies

Advisor: Kari Adamsons, Associate Professor, Human Development and Family Studies

60. Are Older Adults Who Maintain a Close Relationship with Their Children and Grandchildren More Physically Active?

Vincenza Brantle, Human Development and Family Studies and Spanish

Advisor: Deborah McDonald, Associate Professor, Nursing

61. Evaluation of Parenting Education for High-Risk Fathers: Relationship **with a Child's Mother as an Indicator of Paternal Involvement**

Paige Forcier, Human Development and Family Studies and Psychological Sciences

Advisor: Beth Russell, Assistant Professor, Human Development and Family Studies

62. Parental Perceptions of Picky Eaters: The Role of Race and Exposure to Food Marketing

Amanda Craig, Human Development and Family Studies

Advisor: Marlene Schwartz, Professor, Human Development and Family Studies

Advisor: Svetlana Kalnova, Assistant Research Professor, Rudd Center

63F. The Politics of Remembering: The Influence of Race and Gender on the Representation of Women of Color in Nursing

Dacia Walcott, Political Science and History

Advisor: Thomas Long, Associate Professor in Residence, Nursing

Advisor: Jennifer Sterling-Folker, Alan R. Bennett Honors Professor and POLS Honors Director, Political Science



63S. Do Low-**Income Latino Children's Narrative Representations of** Parenting Predict their Academic Skills and Social Relations at the End of First Grade?

Danielle Ganci, Human Development and Family Studies

Advisor: JoAnn Robinson, Professor, Human Development and Family Studies

64. The Effects and Adaptation of Mandatory Diversity Education in Undergraduate Institutions

Vanessa Kania, Individualized Major: Gender, Race, and Inequality

Advisor: Glenn Mitoma, Assistant Professor, Curriculum and Instruction and Human Rights

65. The Effects of Hospital Acquisition of Physician Practices on Quality of Care

Rushi Shah, Physiology and Neurobiology and Individualized Major: Healthcare and Policy

Advisor: Resul Cesur, Assistant Professor, Finance

Advisor: Joseph Crivello, Professor, Physiology and Neurobiology

66F. Diameter Health - Using Data to Make Patients' Lives Easier

Rebecca Axworthy, Communication and Individualized Major: Film Writing

Advisor: Tom Gaiter, Diameter Health

66S. Connecticut Concussion Tracker

Samuel Schick, Statistics

Advisor: Joanne Conover, Associate Professor, Physiology and Neurobiology

67. Invisible Americans: A Legal History of Non-Citizen Nationality and U.S. Empire

Maye Henning, Political Science and Human Rights

Advisor: Charles Venator-Santiago, Associate Professor, Political Science

68. The Personal is Political: Gender and Political Ambition in College Students

Caitlin Briody, Political Science and Sociology

Advisor: Virginia Hettinger, Associate Professor, Political Science

69F. **Don't Steal My Seat! Incumbent Vulnerability in U.S. House Elections**

Adam Kuegler, Political Science

Advisor: Thomas Hayes, Assistant Professor, Political Science

Advisor: Jennifer Sterling-Folker, Alan R. Bennett Honors Professor and POLS Honors Director, Political Science

69S. Running Comes Before Winning: Explaining the Gender Gap in State Legislatures Across America

Marissa Piccolo, Political Science and Economics

Advisor: Virginia Hettinger, Associate Professor, Political Science

70. I Wish I Wasn't in Dixie: Early Voting Restrictions and their Effect on Black Turnout in North Carolina

Carl Costa, Political Science and History

Advisor: Jeffrey Ladewig, Associate Professor, Political Science

71. A Means to an End: How Lobbyists Form Relationships with the Members and Staff of the Connecticut State Legislature

Lindsey Heiman, Political Science and History

Advisor: Susan Herbst, President, University of Connecticut, and Professor, Political Science

Advisor: Jennifer Sterling-Folker, Alan R. Bennett Honors Professor and POLS Honors Director, Political Science

72. Analyzing Partisanship of Bush vs. Obama Supreme Court Appointees' Fourth Amendment Jurisprudence

Blake Giosa, Political Science and Sociology

Advisor: Kimberly Bergendahl, Assistant Professor in Residence, Political Science

73. The Polarization of Voting Laws

William Fricke, Political Science and Economics

Advisor: Paul Herrnson, Professor, Political Science

74F. The Political Future of Saudi Arabia

Paul DaSilva, Political Science and Economics

Advisor: Zaid Eyadat, Professor in Residence, Political Science and Human Rights

Advisor: Jennifer Sterling-Folker, Alan R. Bennett Honors Professor and POLS Honors Director, Political Science

74S. The Criminal Court System and Campus Sexual Assault: Is the Criminal Justice System Equitably Hearing Campus Sexual Assault Cases for the Victim and Perpetrator?

Eliza Conrad, Political Science and Management

Advisor: Kimberly Bergendahl, Assistant Professor in Residence, Political Science

75. **Young Women's Expectations and Preferences during the 2016**

Democratic Primaries

Emma Morelli, Political Science

Advisor: Zehra Arat, Professor, Political Science

76. Shifting Tectonics: State and Civilian Responses to Secularism in Bangladesh

Rubayet Lasker, Political Science and Human Rights

Advisor: Shareen Hertel, Associate Professor, Political Science and Human Rights

Advisor: Jennifer Sterling-Folker, Alan R. Bennett Honors Professor and POLS Honors Director, Political Science

77. **Patchwork Solidarity: Organized Labor within Latin America's Garment Industry**

Christopher Raymond, Human Rights and Management

Advisor: Shareen Hertel, Associate Professor, Political Science and Human Rights

78. Democratization Debunked: A Realist Analysis of US Democratization in Bosnia and Iraq

Ryan Kauer, Political Science and Spanish

Advisor: Stephen Dyson, Associate Professor, Political Science

79. Problematic Frames: The Perception of Muslim American Terrorists vs. Non-Muslim American Terrorists in the American Media

Madiha Shafqat, Political Science

Advisor: Shayla Nunnally, Associate Professor, Political Science

80. Seize the Memes of Production! The Propagation of Marxist Political Theory and Discourse through Internet Memes

Sebastián Chamorro, Political Science

Advisor: Fred Lee, Assistant Professor, Political Science

81. Violence Against Women and Girls: Evidence of the Normative Gap Between Rhetoric and Law

Susan Naseri, Political Science and Human Rights

Advisor: David Richards, Associate Professor, Political Science and Human Rights

82. Extremist Headhunting: How the Islamic State Radicalizes and Recruits Its Members Through Twitter

Mairead Loschi, Political Science and Communication

Advisor: Zaid Eyadat, Professor in Residence, Political Science and Human Rights

83. Representing America: How Citizens are Impacted by Descriptive Representation in Congress

Evelyn Luchs, Political Science

Advisor: Thomas Hayes, Assistant Professor, Political Science

84. Spiritual Social Justice: A Comparative Study of Religious Political Activism in the Same-Sex Marriage Movement

Erin Puglia, Political Science

Advisor: Kristin Kelly, Associate Professor, Political Science

Advisor: Jennifer Sterling-Folker, Alan R. Bennett Honors Professor and POLS Honors Director, Political Science

85F. **Filling the Basket of Deplorables? Donald Trump's Victory in the 2016**

Republican Presidential Primary, the White Working Class and the Dawning of a New Era for the Republican Party

Peter Hopko, Political Science

Advisor: Ronald Schurin, Associate Professor in Residence, Political Science

85S. Ambassador Walworth Barbour - U.S.-Israeli Cold War Relations 1961 to 1973

Jacob Burte, Individualized Major: International Relations

Advisor: Frank Costigliola, Distinguished Professor, History

86F. Neuro-Political Ideology: An fMRI Study

Thomas Martella, Cognitive Science

Advisor: Mikhael Shor, Associate Professor, Economics

86S. Social Etiquette

Jamie Teplica, Sociology

Advisor: Andrea Voyer, Assistant Professor, Sociology

87. Phases of Public Ritual Sacrifice in Ancient Mesoamerica

Madeline Nicholson, Anthropology

Advisor: Richard Sosis, Professor, Anthropology

Advisor: Natalie Munro, Professor, Anthropology

88. Du Jiya's City: Writing Shanghai Sci-Fi in a Revision of Techno-Orientalism

Caitlyn Durfee, English and Chinese

Advisor: Cathy Schlund-Vials, Professor, English, and Director, Asian and Asian American Studies Institute

Advisor: Ellen Litman, Associate Professor, English

Advisor: Liansu Meng, Assistant Professor, Literature, Cultures, and Languages

89. Daniel Alarcón and the Peruvian Post-Conflict, Transnational Cultural Field

Emily Socha, Management and Spanish

Advisor: Guillermo Irizarry, Associate Professor, Literature, Cultures, and Languages

90. The Ship of Plato: A Theory of Dualistic-Teleological Identity

Christopher Caples, Philosophy

Advisor: Thomas Bontly, Associate Professor, Philosophy

91. Battle from the Homefront: How and Why Two Northern Women Helped Fight the Civil War

Helen Stec, History and English

Advisor: Peter Baldwin, Professor, History

92. Thalia and Music in the Arian Controversy

Madeline Caples, Classics and Ancient Mediterranean Studies

Advisor: Sean Northrup, Visiting Professor, History

93. The Role of Gradient Microenvironments in Supporting Termite Gut Community Diversity

Alyssa Pierne, Chemical Engineering

Advisor: Leslie Shor, Associate Professor, Chemical and Biomolecular Engineering

94. Influence of Physical Microstructure and Hydrophobicity on Soil Drying

Daniel Dougherty, Chemical Engineering

Advisor: Leslie Shor, Associate Professor, Chemical and Biomolecular Engineering

95. Biocompatibility of 3D Printer Material in Bacterial Cultures

Cameron Harrington, Chemical Engineering and Molecular and Cell Biology

Advisor: Leslie Shor, Associate Professor, Chemical and Biomolecular Engineering

96F. Influence of Electrostatic Interactions on Particle Tracking for Microrheology Analysis  
Nur Hamideh, Chemical Engineering  
Advisor: Leslie Shor, Associate Professor, Chemical and Biomolecular Engineering

96S. Gradient Osteochondral Matrix: Growth Factor Release and In Vitro Characteristics  
Marisa Boch, Chemical Engineering and Molecular and Cell Biology  
Advisor: Syam Nukavarapu, Assistant Professor, Orthopaedic Surgery, UConn Health

97. Co-patterning of Living Tissues in 3D Printed Microfluidic Chips  
Christiane Nguyen, Chemical Engineering  
Advisor: Savas Tasoglu, Assistant Professor, Mechanical Engineering

98F. Enhanced Photodynamic Efficacy of Porphyrin By Nanodisc Encapsulation  
Christopher Tricard, Chemical and Biomolecular Engineering  
Advisor: Mu-Ping Nieh, Associate Professor, Chemical and Biomolecular Engineering

98S. Bio-Inspired Sensitive and Reversible Mechanochromisms via Strain-Dependent Cracks and Folds  
Cong Hu, Materials Science and Engineering  
Advisor: Luyi Sun, Associate Professor, Chemical and Biomolecular Engineering

99. Measurement of Theoretical Strength of Single Crystal Metals Using Spherical Indentation  
Hetal Patel, Materials Science and Engineering  
Advisor: Seok-Woo Lee, Assistant Professor, Materials Science and Engineering

100F. Superelasticity of ThCr<sub>2</sub>Si<sub>2</sub>-type Intermetallic Compounds  
Amanda Giroux, Materials Science and Engineering  
Advisor: Seok-Woo Lee, Assistant Professor, Materials Science and Engineering

100S. Optimizing YAG Thermal Barrier Coatings Synthesized with Solution Precursor Plasma Spray with Taguchi Design of Experiment  
Drew Cietek, Materials Science and Engineering  
Advisor: Eric Jordan, Professor Emeritus, Mechanical Engineering  
Advisor: Maurice Gell, Professor Emeritus, Materials Science and Engineering

101F. Factors Involved in Suppression of Human V $\gamma$ 9V $\delta$ 2 T-Lymphocytes and Impact of Checkpoint Blockades on the Effector Functions of V $\gamma$ 9V $\delta$ 2 T-Lymphocytes

MinJi Choi, Pharmacy

Advisor: Andrew Wiemer, Assistant Professor, Pharmaceutical Sciences

101S. Improving Gene Annotation to Facilitate Comparative Genomics in Five Walnut Species (*Juglandaceae*)

Anvin Thomas, Molecular and Cell Biology

Advisor: Jill Wegrzyn, Assistant Professor, Ecology and Evolutionary Biology

102F. Treatment for Acute Osteo-Articular Infections in Children, Is Clindamycin a Reasonable Empiric Option?

Caroline Liang, Pharmacy

Advisor: Jennifer Giroto, Associate Clinical Professor, Pharmacy Practice

## HALLWAY

103. ErbB Family Kinase Distribution in Rheumatoid Arthritic Tissue

Tyler Ackley, Pharmacy and Molecular and Cellular Biology

Advisor: Caroline Dealy, Associate Professor, Department of Reconstructive Sciences, Department of Orthopaedic Surgery, Center for Regenerative Medicine and Skeletal Development, UConn Health

104. Strategies to Identify the Allosteric Binding Site on CB1

Brett Chen, Pharmacy

Advisor: Debra Kendall, Distinguished Professor, Pharmaceutical Sciences

105. Pharmacological Characterization of Novel Small Molecule Agonists Targeting Cannabinoid Receptor 2

Ashley Hine, Physiology and Neurobiology and Molecular and Cell Biology

Advisor: Debra Kendall, Distinguished Professor, Pharmaceutical Sciences

106F. Translesion Synthesis Inhibitors as Anti-Cancer Adjuvant Agents

Kelly Chan, Pharmacy

Advisor: Kyle Hadden, Associate Professor, Pharmaceutical Sciences

106S. Carbon Storage in the Mid-Depth Atlantic During Millennial Scale Climate Events

Matt Lacerra, Marine Sciences

Advisor: David Lund, Associate Professor, Marine Sciences

107F. Antibiotic Dosing Considerations in Pediatric Patients with Renal Dysfunction

Jennifer Mitri, Pharmacy

Advisor: Jennifer Giroto, Associate Clinical Professor, Pharmacy Practice

107S. Biotic Versus Abiotic Control of Body Size in a Marine Copepod  
Wesley Huffman, Marine Sciences

Advisor: Hans Dam, Professor, Marine Sciences

108. Vitamin E Nanoliposome Characterization and Analysis for Use in Cosmetics

Brendan Clark, Pharmacy and Biological Sciences

Advisor: Ying Liu, ReinEsse, LLC

Advisor: Diane Burgess, Distinguished Professor, Pharmaceutical Sciences

109F. Background Studies at the Interaction Point for the Proposed Jefferson Lab Electron-Ion Collider

Christine Ploen, Physics

Advisor: Latifa Elouadrhiri, Senior Staff Scientist, Thomas Jefferson National Accelerator Facility

Advisor: Kyungseon Joo, Professor, Physics

Advisor: Kijun Park, Staff Scientist, Thomas Jefferson National Accelerator Facility

109S. The Ultimate LEGA-C: Does Age Really Drive the Spread in Rest-Frame Colors?

Rochelle Horanzy, Engineering Physics

Advisor: Katherine Whitaker, Assistant Professor, Physics

110. Negative Thermal Expansion in Two Incipient Ferroelastics  
Connor Occhialini, Physics and Mathematics

Advisor: Jason Hancock, Assistant Professor, Physics



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111. Metabolically Important Molecules in Bacterial Spores Determined Using <sup>13</sup>C NMR

Stephen Abini-Agbomson, Biophysics

Advisor: Victoria Robinson, Associate Professor, Molecular and Cell Biology

112. Identification of Tyrosine Phosphorylation Sites on BipA

Akua Owusu, Molecular and Cell Biology

Advisor: Victoria Robinson, Associate Professor, Molecular and Cell Biology

113. Characterization of *MyoD* and *Myf5* Double-Knockout Muscle Stem Cells During Muscle Development

Andreea Dinicu, Molecular and Cell Biology

Advisor: David Goldhamer, Professor, Molecular and Cell Biology

114. Exploring the Function of the *Myf5* and *MyoD* Genes in Satellite Cells During Early Postnatal Myogenesis

Kristina Gaffney, Allied Health Sciences

Advisor: David Goldhamer, Professor, Molecular and Cell Biology

Advisor: Masakazu Yamamoto, Assistant Research Professor, Molecular and Cell Biology

115. Requirement of Degradation in Chemotaxis: Analysis of Non-Degradable Chemoattractant

Alex Marshall, Molecular and Cell Biology

Advisor: David Knecht, Professor, Molecular and Cell Biology

116. Regulation of WHIMP Activity by Rho-family GTPases

Nathaniel Jenkins, Molecular and Cell Biology

Advisor: Kenneth Campellone, Assistant Professor, Molecular and Cell Biology

117. Investigating Roles for Autophagy and the Actin Cytoskeleton in

**Promoting  $\alpha$ -Synuclein Clearance in Parkinson's Disease**

Isabel Nip, Molecular and Cell Biology

Advisor: Kenneth Campellone, Assistant Professor, Molecular and Cell Biology

118. Average Nucleotide Identity as a Distance-based Approach to Examine Phylogeny and Taxonomy

Sean Gosselin, Molecular and Cell Biology

Advisor: Peter Gogarten, Distinguished Professor, Molecular and Cell Biology

119. Prediction of Harmful Water Quality Parameters Combining Weather, Air Quality and Ecosystem Models with In-Situ Measurements  
Catherine Nowakowski, Environmental Engineering  
Advisor: Marina Astitha, Assistant Professor, Civil and Environmental Engineering  
Advisor: Penny Vlahos, Associate Professor, Marine Sciences

120F. The Intersection of Manufacturing Technologies and School Music Programs  
Leslie Prunier, Mechanical Engineering  
Advisor: Julian Norato, Assistant Professor, Mechanical Engineering  
Advisor: Diane Van Scoter, Associate Professor in Residence, Materials Science and Engineering  
Advisor: James Jackson, Adjunct Faculty, Music

120S. Assessing Federal Investments in Teacher Leadership at the Local Level  
**Molly Gondelman, English and Women's, Gender, and Sexuality Studies**  
Kathrine Grant, Secondary English Education and English  
Advisor: Jason Courtmanche, Lecturer, English, and Director, Connecticut Writing Project

121. Efficient Coupling for Finite State Markov Chains  
Rachel Lonchar, Mathematics and Civil Engineering  
Advisor: Iddo Ben-Ari, Associate Professor, Mathematics

122F. Beyond Capture: A Visual Body Condition Index to Evaluate Mule Deer Nutritional Condition  
Rachel Smiley, Natural Resources  
Advisor: Chadwick Rittenhouse, Assistant Research Professor, Natural Resources and the Environment

122S. Food Quality and Diet Preference in *Mysis diluviana*  
Jessica Griffin, Environmental Science and Ecology and Evolutionary Biology  
Advisor: Jason Stockwell, Associate Professor, Rubenstein School of Environment and Natural Resources, University of Vermont

123. Effects of Sphingolipids on LPS-mediated Inflammation in RAW264.7 Macrophages  
Caitlin Porter, Nutritional Sciences  
Advisor: Christopher Blesso, Assistant Professor, Nutritional Sciences

124. Generation of Tetracycline-Inducible Copenhagen and Wyeth Vaccinia Virus Strains for Vaccine Development  
Sarah Robbins, Pathobiology and Molecular and Cell Biology  
Advisor: Paulo Verardi, Associate Professor, Pathobiology and Veterinary Science

125. An Alternative Locus for the Rapid Generation of Recombinant Vaccinia Viruses  
Martin Porebski, Pathobiology  
Advisor: Paulo Verardi, Associate Professor, Pathobiology and Veterinary Science

126. The Role of ApoC-III on Dietary Absorption within the Intestine  
Devisha Patel, Molecular and Cell Biology  
Advisor: Alison Kohan, Assistant Professor, Nutritional Sciences

127. Acidification Treatments for the Control of *Listeria Monocytogenes* in Model Cheese Brines  
Nathalia Millán-Borrero, Molecular and Cell Biology  
Advisor: Dennis D'Amico, Assistant Professor, Animal Science

128. A FRET Based High Throughput Screen for PKC Activators and Inhibitors  
Xiuyi (Alex) Yang, Molecular and Cell Biology  
Advisor: Adam Zweifach, Associate Professor, Molecular and Cell Biology

129. Investigating Prophylactic Potential of Neoepitope Immunization Against Cancer in a Murine Model  
Ryan Englander, Molecular and Cell Biology and Chemistry  
Advisor: Pramod Srivastava, Professor, Immunology, and Director, Carole and Ray Neag Comprehensive Cancer Center, UConn Health

130. Let it Glo: Investigating Adenylate Cyclase and cAMP in Plants  
Jishnu Bhatt, Molecular and Cell Biology and Plant Biotechnology  
Advisor: Gerald Berkowitz, Professor, Plant Science and Landscape Architecture

131. Two Lichens, One Fungus: The Identity of *Dendriscoaulon intricatulum*  
Dinah Parker, Biological Sciences  
Advisor: Bernard Goffinet, Professor, Ecology and Evolutionary Biology

132. Can Extinction Likelihood be Predicted by Physical and Behavioral Characters of Wetland Bird Species?

Michael Stankov, Ecology and Evolutionary Biology

Advisor: Chris Elphick, Associate Professor, Ecology and Evolutionary Biology

133. What Correlates with Telomere Length in American Kestrels (*Falco sparverius*)?

Kathleen Callery, Ecology and Evolutionary Biology

Advisor: Chris Elphick, Associate Professor, Ecology and Evolutionary Biology

134. Examination of Reproductive Investment of Ninespine Stickleback, *Pungitius pungitius*, Infected with the Cestode *Schistocephalus pungitii*

Delaney Kehoe, Ecology and Evolutionary Biology

Advisor: Eric Schultz, Professor, Ecology and Evolutionary Biology

135. Testing the Importance of Nitrogen in Attraction of Green Algae (*Oophila*) to Eggs of the Spotted Salamander (*Ambystoma maculatum*)

Wyatt Million, Biological Sciences

Advisor: Louise Lewis, Professor, Ecology and Evolutionary Biology

136. Developmental Timing in Periodical Cicada Life-Cycle Evolution

Diler Haji, Ecology and Evolutionary Biology and Journalism

Advisor: Chris Simon, Professor, Ecology and Evolutionary Biology

137. **Computational Transcriptomics to Decode a Christmas Tree's**

Resistance to Phytophthora Dieback (Root Rot)

Alexander Trouern-Trend, Molecular and Cell Biology

Advisor: Jill Wegrzyn, Assistant Professor, Ecology and Evolutionary Biology

138. Developing a Computational Model to Improve the Analysis and Design of Laser Sintering Devices

Justin DeLarm, Mechanical Engineering

Advisor: Xinyu Zhao, Assistant Professor, Mechanical Engineering

139. What Ever Happened to Ginger?: The Rise and Fall of the Segway

Andrew Clark, Civil Engineering

Advisor: Norman Garrick, Associate Professor, Civil and Environmental Engineering

Advisor: Carol Atkinson-Palombo, Associate Professor, Geography

140. Optimizing Guidance for an Active Shooter Event

Sean Gunn, Mathematics and Mechanical Engineering

Advisor: Peter Luh, Professor, Electrical and Computer Engineering

141. Effects of Caffeine and Hypothermia on Neuropathology in P6 Rats with Experimentally Induced Hypoxic Ischemic Brain Injury

Molly Potter, Physiology and Neurobiology and Psychological Sciences

Advisor: R. Holly Fitch, Professor, Psychological Sciences

142. Development of Training Paradigms for Sound Discrimination

Shivali Gupta, Physiology and Neurobiology and Psychological Sciences

Advisor: Heather Read, Associate Professor, Psychological Sciences

143. Effort-Related Decision Making in COMT Variant Mice:

Pharmacological Studies and Genetic Susceptibility to Motivational Dysfunction

Suzanne Cayer, Physiology and Neurobiology

Advisor: John Salamone, Distinguished Professor, Psychological Sciences

144F. Hippocampal Function in Schizotypal Personality Spectrum

Franchesca Kuhney, Psychological Sciences

Advisor: Robert Astur, Associate Professor, Psychological Sciences

144S. The Relationship Between Positive/Negative Parent Perceptions and Callous-Unemotional Traits in Children

Claudia Paszek, Psychological Sciences

Advisor: Jeffrey Burke, Associate Professor, Psychological Sciences

145. Curcumin and Memory

Cayla Mitzkovitz, Psychological Sciences

Advisor: Robert Astur, Associate Professor, Psychological Sciences

146F. Reward Sensitivity Effects on Conditioning

Ambica Mehndiratta, Physiology and Neurobiology

Advisor: Robert Astur, Associate Professor, Psychological Sciences

146S. How Does Interpath Angle Influence Escape Behavior: An Empirical Test with Yellow-Bellied Marmots

Kwasi Wrensford, Ecology and Evolutionary Biology

Advisor: David Miller, Professor, Psychological Sciences

147F. Unique Purinergic Regulation of Vascular Tone in the Retrotrapezoid Nucleus

Colin Cleary, Physiology and Neurobiology and Molecular and Cell Biology  
Advisor: Daniel Mulkey, Associate Professor, Physiology and Neurobiology

147S. Investigating Service Learning Pedagogy in Undergraduate STEM Coursework

Colin Cleary, Physiology and Neurobiology and Molecular and Cell Biology  
Advisor: John Redden, Assistant Professor in Residence, Physiology and Neurobiology

148. Turning the Brain Off: Inactivation of the Medial Prefrontal Cortex and Hippocampus in Rats Performing a Sequence Task

John Riley Pflomm, Physiology and Neurobiology  
Mahathi Kumar, Physiology and Neurobiology  
Advisor: Etan Markus, Professor, Psychological Sciences

149. Observational Learning in Female Rats in T-Shaped Water and Dry Food Mazes

Karen Mathew, Physiology and Neurobiology  
Aditi Agrawal, Physiology and Neurobiology  
Danni Dong, Psychological Sciences  
Nathalia Hernandez, Molecular and Cell Biology  
Thomas Pietruszewski, Psychological Sciences  
Advisor: Etan Markus, Professor, Psychological Sciences

150. The GPS in Your Brain! Recording of Individual Neurons in Rats as They Traverse Familiar and Novel Environments

Nikita Roy, Biological Sciences  
David Katz, Physiology and Neurobiology and Psychological Sciences  
Miriam Katz, Physiology and Neurobiology  
Divya Subramanian, Physiology and Neurobiology  
Advisor: Etan Markus, Professor, Psychological Sciences

151. The Gateway to the Brain: Construction of a Microdrive Array to Record Single Unit Brain Activity in Rats

Mahathi Kumar, Physiology and Neurobiology  
Megan Pattoli, Pathobiology and Molecular and Cell Biology  
Thomas Pietruszewski, Psychological Sciences  
Advisor: Etan Markus, Professor, Psychological Sciences

152F. Expression of Collybistin Isoforms in Rat Brain

Karthik Kanamalla, Physiology and Neurobiology

Advisor: Angel de Blas, Professor, Physiology and Neurobiology

152S. Temporal Changes in Muscle Formation in the Chicken Embryo

Maya Schlesinger, Animal Science

Advisor: Mary Anne Amalaradjou, Assistant Professor, Animal Science

153. The Immediate Blood Pressure Lowering Effects of Acute Concurrent Exercise: A Meta-Analysis

Alyssa Jones, Biological Sciences

Advisor: Linda Pescatello, Distinguished Professor, Kinesiology

154. Neural Stem Cell Differentiation and Ependymogenesis Throughout Fetal and Early Postnatal Development

Emily Norton, Physiology and Neurobiology

Advisor: Joanne Conover, Associate Professor, Physiology and Neurobiology

155. Ventriculomegaly and Accompanying Gliosis Associated with Impaired Fluid Dynamics in the Aging Brain

Tessa Brighton, Molecular and Cellular Biology

Advisor: Joanne Conover, Associate Professor, Physiology and Neurobiology

156. Expression Pattern of GFAP and GFAP $\delta$  in Rodent Rostral Migratory Stream Development and Glial Scar Formation

Shaharyar Zuberi, Physiology and Neurobiology

Advisor: Joanne Conover, Associate Professor, Physiology and Neurobiology

157. Investigating Molecular Targets of Dietary Therapies for Seizure-Like Event in *Drosophila* Metabolic Mutants

Tomasz Sopel, Physiology and Neurobiology and Molecular Cell Biology

Neil Sharma, Physiology and Neurobiology

Advisor: Geoffrey Tanner, Assistant Professor in Residence, Physiology and Neurobiology

158. Dietary Effects on CTE in *Drosophila*

Shane Baldwin, Biological Sciences

Advisor: Geoffrey Tanner, Assistant Professor in Residence, Physiology and Neurobiology

159. Investigating Dietary Therapies for Alzheimer's Disease in a *Drosophila* Model of Tauopathy  
Jacqueline Barth, Physiology and Neurobiology  
Elizabeth Pouya, Physiology and Neurobiology  
Advisor: Geoffrey Tanner, Assistant Professor in Residence, Physiology and Neurobiology
160. The Role of Ras Signaling in Ovulation in *Drosophila*  
Radhika Malhotra, Physiology and Neurobiology and Economics  
Advisor: Jianjun Sun, Assistant Professor, Physiology and Neurobiology
161. Oxoammonium Salts: Powerful Yet Practical Reagents for Oxidation and Oxidative Functionalization  
John Ovia, Chemistry  
Advisor: Nicholas Leadbeater, Associate Professor, Chemistry
162. Tuning the Conformational Equilibria in Saturated Heterocycles Through the Manipulation of a Non-Classical CH---O Hydrogen Bond: The Importance of Electrostatic Interactions within Small Molecules  
Zachary Stempel, Chemistry  
Advisor: William Bailey, Professor, Chemistry
163. Assembly of 3-D Gold Plasmonic Flower Structures for SERS Detection  
Lacie Dube, Chemistry  
Advisor: Jing Zhao, Assistant Professor, Chemistry
164. Mutagenicity of 1-Nitropyrene-Induced N2-**2'**-Deoxyguanosine Adducts: Translesion DNA Synthesis in Human Cells  
Hamsa Ganapathi, Chemistry  
Advisor: Ashis Basu, Professor, Chemistry
165. Mn<sub>2</sub>CO<sub>10</sub> Catalysed Synthesis of Poly(vinylidene fluoride) Block Copolymers  
Mark Johnson, Chemistry and Physics  
Advisor: Alexandru Asandei, Associate Professor, Chemistry



166F. Replication of Damaged DNA  
Richa Gupta, Biochemistry  
Advisor: Ashis Basu, Professor, Chemistry

166S. Synthesis of Sulfatides for Type II NKT Cell Activation  
Emese Kanyo, Chemistry  
Advisor: Amy Howell, Professor, Chemistry

167. On the Impact of Uncertain Gene Tree Rooting on Duplication-  
Transfer-Loss Reconciliation  
Soumya Kundu, Computer Science and Engineering  
Advisor: Mukul Bansal, Assistant Professor, Computer Science and Engineering

168F. Lab-On-A-Chip Device for an Early Diagnosis of Cardiac Diseases  
Elena Carrington, Molecular and Cell Biology  
Karim Jalil, Physiology and Neurobiology  
Advisor: Charles Giardina, Professor, Molecular and Cell Biology  
Advisor: James Rusling, Professor, Chemistry

168S. Tripal Plant PopGen Submit: A Simplified Pipeline and Database  
Solution for Landscape Genomics Studies in Plants  
Michael Wynne, Computer Science and Engineering  
Advisor: Jill Wegrzyn, Assistant Professor, Ecology and Evolutionary Biology

169. Bioinformatic Evaluation of Transcriptomic Frame Selection Methods  
in Non-Model Species  
Sumaira Zaman, Biomedical Engineering  
Advisor: Jill Wegrzyn, Assistant Professor, Ecology and Evolutionary Biology

## HALLWAY

170. Study on 3D Cancer Spheroids - Nanoparticle Drug Delivery and  
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Amanda Lor, Biomedical Engineering  
Advisor: Kazunori Hoshino, Assistant Professor, Biomedical Engineering

171. Preventing Neo-Natal Mortality Using Technology Assisted Kangaroo Mother Care

Celine Agnes, Biomedical Engineering

Rosalie Bordett, Biomedical Engineering

Callah Carroll, Biomedical Engineering

Katelyn Houlihan, Biomedical Engineering

Sarah McGee, Biomedical Engineering

Courtney Mulry, Biomedical Engineering

Advisor: Bin Feng, Assistant Professor, Biomedical Engineering

172. The Neurochemical Phenotype of Lateral Hypothalamic Hcrt/Ox and MCH Neurons Identified Through Single Cell Gene Expression Profiling

Brock Chimileski, Physiology and Neurobiology and Molecular and Cell Biology

Advisor: Alexander Jackson, Assistant Professor, Physiology and Neurobiology



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## Special Thanks

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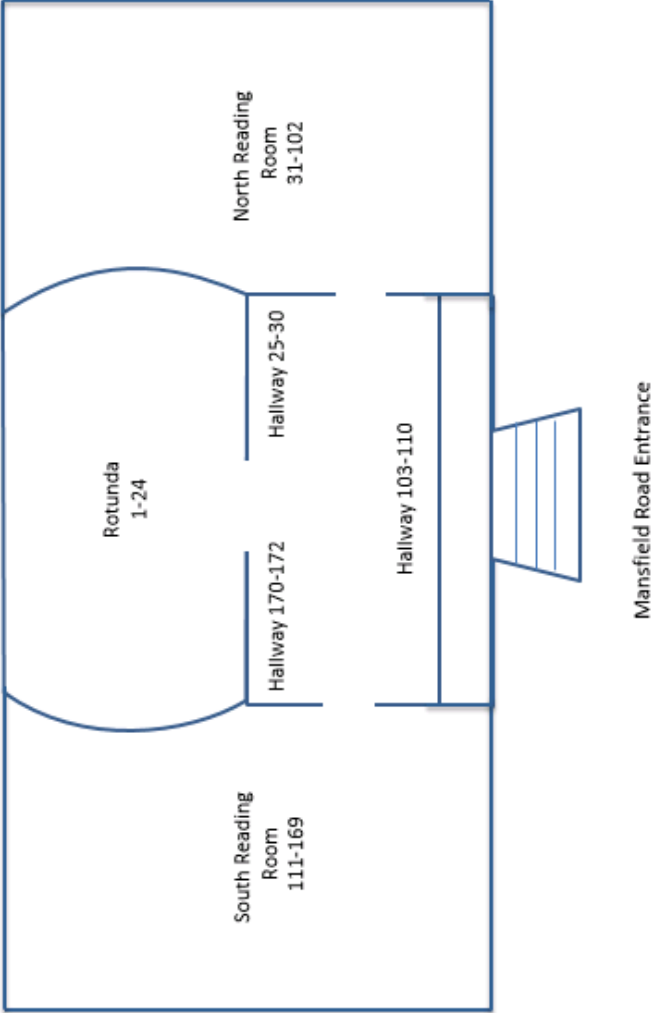
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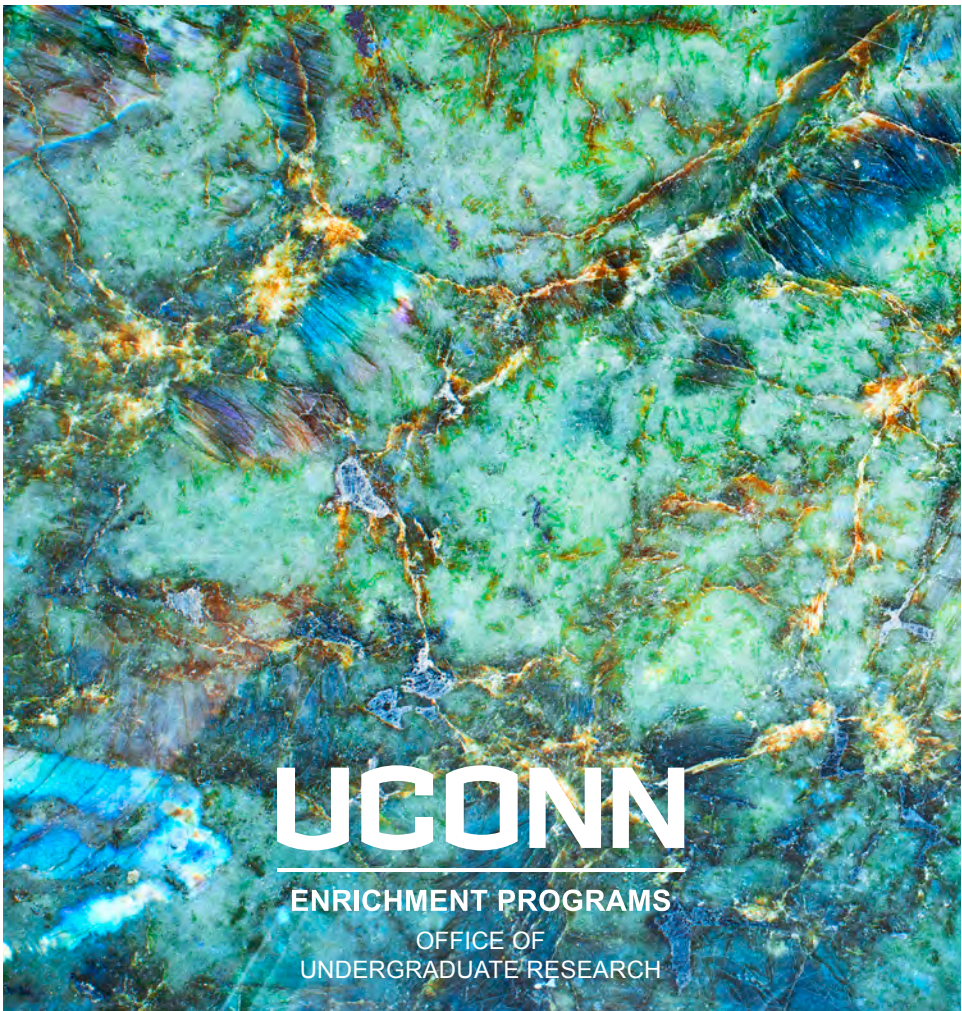
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